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Notice of Allowability	Application No.	Applicant(s)	
	09/866,180	MATSUMOTO, ISAO	
	Examiner	Art Unit	
	Mark Ruthkosky	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/23/2006.
2. ☒ The allowed claim(s) is/are 4-7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

**MARK RUTHKOSKY
PRIMARY EXAMINER**

Mark Ruthkosky 3-6-06

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Applicant has canceled all rejected claims in order to pass allowed claims 4-7 to issue. Non-elected claims 12-20 are pending in the application and are canceled in order to pass the allowed claims to issue. Claims 4-7 are allowed.

The application has been amended as follows:

Cancel claims 12-20.

Claim Rejections - 35 USC § 103

The rejection of claims 1, 2 and 8 under 35 U.S.C. 103(a) as being unpatentable over Kito et al. (US 6,258,487 B1), in view of Webb et al. (US 6,300,002) has been overcome by the applicant's cancellation of the claims.

The rejection of claims 1-3 and 8 under 35 U.S.C. 103(a) as being unpatentable over Kaido et al. (US 6,284,405) in view of Webb et al. (US 6,300,002) has been overcome by the applicant's cancellation of the claims.

The rejection of claims 9-11 under 35 U.S.C. 103(a) as being unpatentable over Kito et al. (US 6,258,487 B1) OR Kaido et al. (US 6,284,405), in view of Webb et al. (US 6,300,002),

Art Unit: 1745

and further in view of Nakai et al. (JP 60-180,058) has been overcome by the applicant's cancellation of the claims.

Allowable Subject Matter

Claims 4-7 are allowed.

The following is an examiner's statement of reasons for indicating allowable subject matter. The instant claims are to spiral-rolled electrodes for batteries having a concentric circle shape or elliptical shape including a thin nickel positive electrode, a thin metal hydride negative electrode and a separator wound in between. The positive and negative electrodes comprise a combination of plural electrode plates wound in series in order. Each combination of plates has a substantially constant amount of active or pseudo active material. Each electrode plate in the electrode is wound in series with an interval between each plate. The thickness of the electrode at the side where the winding starts is thinner than the thickness of the electrode at the side where the winding ends. The prior art does not teach a nickel metal hydride battery where the positive and negative electrodes comprises a combination of plural electrode plates wound in series in order; each electrode plate in the electrode is wound in series with an interval between each plate; and the thickness of the electrode at the side where the winding starts is thinner than the thickness of the electrode at the side where the winding ends.

The most pertinent prior art has been cited. Kitoh et al. (US 6,258,487 B1) teaches a battery including spiral-rolled electrodes with a divided electrode base plate. The battery has a concentric circle shape or elliptical shape and includes a positive electrode, a negative electrode and a separator there between. The combination of plates has a substantially constant amount of

Art Unit: 1745

active or pseudo active material as one electrode is prepared and divided into equivalent sections (col. 7, lines 1-15.) The electrodes inherently are selected and have an individual weight. With regard to the process of selecting the plates, the limitation has been considered, but is not given patentable weight, as it does not define the claimed product. The electrodes are wound into a battery. Each segment is taught to have a lead (col. 5, lines 20-35.) Kito et al. (US 6,258,487 B1) does not teach electrode plates having at least two chamfered corners, however does teach that the divided electrodes could have various shapes (col. 5, lines 12-26.)

Kaido et al. (US 6,284,405) teaches a battery including spiral-rolled electrodes with a divided electrode base plate. The battery has a concentric circle shape or elliptical shape and includes a positive electrode, a negative electrode and a separator there between. The plate includes a conductive plate with an active material coated onto sections of the plate in a manner to leave an uncoated area along an edge of the plate and at predetermined intervals in a winding direction (claims 1-31 and the figures.) The uncoated edge area is used to attach a conductive tab plate in order to transfer charge. The reference does not teach electrode plates having at least two chamfered corners.

Wound batteries with separated electrode plates are well described in the art as noted by Kito et al. (US 6,258,487 B1) and Nagura et al. (US 5,534,369), as applied. The references do not teach batteries including a thin nickel positive electrode, a thin metal hydride negative electrode and a separator wound in between or that the thickness of the electrode at the side where the winding starts is thinner than the thickness of the electrode at the side where the winding ends. As such, the claims are allowed.

Art Unit: 1745

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner Correspondence

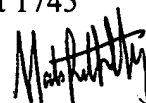
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Ruthkosky

Primary Patent Examiner

Art Unit 1745

 3-6-06